

621, 32

The Kitson Light

WE LIGHT THE CENTRAL PAVILION
NATIONAL EXPOSITION,

PHILADELPHIA,

September 14 to November 30, 1899.

WM. N. YEATON.



621, 32

A BRIEF HISTORY OF THE
PROGRESS OF THE

KITSON INCANDESCENT LIGHT.

THE principle of burning kerosene oil or naphtha in a lamp, with a blue flame, and heating a mantle to incandescence, was first invented by Mr. Arthur Kitson, in the United States, about the year 1885. The first lamp was operated with a platinum gauze mantle. It was found, however, that the platinum became spongy under intense heat, and deteriorated very rapidly, so that this metal was found to be imperfect for a lamp of this kind.

In 1897 the present form of Kitson Oil Lamp was designed, and a Company for the United States was organized with a capital of \$3,000,000. The first local company was organized in Birmingham, Ala., about November, 1897, and commenced installing lamps on the rental system. The organization of several other companies soon followed.

The growth of the business has been prodigious, and is, probably, without a rival in the annals of artificial lighting. Thousands of Kitson Lights have been installed, and are in successful operation in various parts of the United States, and the demand now far exceeds the capacity of the different factories employed by the Kitson Company to furnish.

NOTICE.

The public is hereby notified that all Incandescent Lamps using oil or naphtha, with mantle and a Vapor Tube located in the heating zone of said mantle, are infringements of U. S. Patents granted to Arthur Kitson, and that the undersigned propose to take action against infringers, and to hold both users and manufacturers of the same liable for damages. The public is hereby cautioned against the use of such lamps, excepting those furnished by this Company.

Suits are now pending in the U. S. Courts against various infringers of the Kitson patents. Under the U. S. Patent laws, users of infringing devices are equally liable for damages with manufacturers and dealers in same.

KITSON HYDRO-CARBON HEATING
AND INCANDESCENT LIGHTING CO.

KITSON System of Incandescent Lighting.

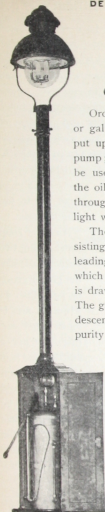
Operation....

Ordinary kerosene oil is placed in a steel or galvanized iron tank, and a pressure is put upon it by means of an ordinary air pump; or, if desired, water pressure may be used. By the agency of this pressure the oil is forced from the tank to the lamps through small tubes, no larger than electric light wires.

The lamp is simple in construction, consisting of an oil vaporizer and an air tube leading to and supporting the burner, into which the vaporized oil is injected, and air is drawn in through an opening at the top. The gas thus formed burns within an incandescent mantle, creating a light of intense purity and brilliancy. The vaporizing tube

is supported directly above the mantles and receives heat therefrom; the oil comes to the lamp cold and the entire process of gasification is carried on in the lamp itself, and owing to the extreme simplicity of its mechanism and to the arrangement for supplying the oil, the danger of accidents of any kind is reduced to a minimum.

The reservoir containing the oil may be placed at a considerable distance from the lamps, a large number of which may be supplied with kerosene from a single tank.



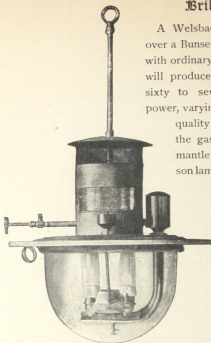
STREET LAMP.

1200 Actual Candle Power.

Brilliancey.

A Welsbach mantle placed over a Bunsen burner supplied with ordinary coal or water gas will produce a light of from sixty to seventy-five candle power, varying according to the quality and pressure of the gas, while the same mantle placed on the Kitson lamp yields, by actual test, a light of from 580 to 640 candle power.

A cluster lamp containing two burners and mantles gives a greater light than an electric arc, is much softer and more diffusive and does not produce that flicker-



CLUSTER LAMP.
For Store and Factory Lighting.
1200 Actual Candle Power.

ing so objectionable in the latter. Under the light produced by the Kitson lamp, colors are as easily distinguished as by daylight; in fact it more closely resembles sunlight than does any other artificial illuminant, so closely in fact that photographs have been taken by its rays with complete success.

Adaptability.

All of these properties of the Kitson light render it exceptionally desirable for the various forms of store and factory lighting, while for street lighting it possesses advantages over any of the present methods employed, not the least import-

ant of which is that each lamp with post contains a complete plant in itself, so that an accident would affect but one light, and not the entire system, as in the case of electric lighting.

For street lighting lamps may be used on posts or swung across the street from a bracket.

The individual plant system renders it most adaptable for isolated places, such as lawns, carriage drives, country club houses, and in fact, all places where neither gas nor electric light can be obtained.

The Kitson System has lately been perfected for street and railway car lighting and also for use on steamboats.

Safety.

The Kitson System of Incandescent Oil Lighting has been pronounced by experts as safe, if not safer, than any other system of artificial lighting. Automatic check valves are placed on the lines and on every tank supplying the oil to the lamps, and these are so arranged that in case of any accident to the tubes the oil supply is immediately shut off and the danger from the spilling of oil avoided. Exhibitions of this device have re-



HOOD LAMP,
For Outside Lighting.
1250 Actual Candle Power.

cently been given to the fire insurance experts and the tubes have been sawn asunder with the oil pressure turned on without the loss of a teaspoonful of oil. In case of fire in a building in which the tanks containing the oil are located, a safety expansion valve is provided and the air pressure taken from off the oil so that the oil is left in its normal condition in the reservoir. The reservoirs are constructed of drawn steel that are guaranteed to withstand from fifteen hundred to two thousand pounds hydraulic pressure. The tubes conveying the oil are guaranteed to withstand a pressure of one thousand pounds to the square inch. As the pressure upon the oil is never more than sixty pounds it will be seen that there is a large factor of safety, and under no ordinary conditions could any accident occur.

Attention is called to the fact that these lamps burn kerosene oil, thereby avoiding the dangers resulting from the use of gasoline or naphtha.

Rental.

The Kitson lamps are never sold outright, but are placed exclusively on a rental basis, the Kitson Company furnishing the oil and mantles and keeping the lamps clean and in repair. Rates may be ascertained on application to any of our offices.

KITSON HYDRO-CARBON HEATING AND INCANDESCENT LIGHTING CO.

Main Office and Factory,
Eighth and Willow Streets,
PHILADELPHIA, PA.

Branches.

NEW YORK, N. Y., 142 W. 125th Street.
BOSTON, MASS., 190 Congress Street.
BALTIMORE, MD., 103 N. Gay Street.
PITTSBURG, PA., 441 Sixth Avenue.
CINCINNATI, O., 717 Race Street.
TRENTON, N. J., 8 E. State Street.
ATLANTIC CITY, N. J., 1612 Atlantic Avenue.
CONEY ISLAND, N. Y., Kensington Walk.

Sub-Companies.

KITSON LIGHT AND HEAT CO., Birmingham, Ala.
PEOPLE'S LIGHT AND HEAT CO., Mobile, Ala.
KITSON HYDRO-CARBON LIGHT AND HEAT CO., Little Rock, Ark.
KITSON HYDRO-CARBON LIGHT AND HEAT CO., Pine Bluff, Ark.
PEOPLE'S LIGHT AND HEAT CO., Hot Springs, Ark.
CLARENDON HEAT AND LIGHT CO., Clarendon, Ark.
KITSON LIGHT AND HEAT CO., Shreveport, La.
COAHOMA HEAT AND LIGHT CO., Stovall, Miss.
THE PEOPLE'S LIGHT CO., Greenville, Miss.
KITSON HYDRO-CARBON HEATING AND
INCANDESCENT LIGHTING CO. OF GEORGIA, Macon, Ga.
TUSCALOOSA KITSON LIGHT CO., Tuscaloosa, Ala.

Agents for Southern States:

E. L. BROWN AND H. W. PERRY, Birmingham, Ala.

KITSON HYDRO-CARBON HEATING AND
INCANDESCENT LIGHTING CO.



MAIN OFFICE AND FACTORY,
EIGHTH AND WILLOW STREETS,
PHILADELPHIA.

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